Prevention of Fetal Alcohol Spectrum Disorders: Practice Behaviors, Attitudes, and Confidence among Members of the American College of Nurse-Midwives

By
Bridget L. Hanson, PhD
Rebecca R. Porter, MS
Robyn Mertz, BS

Institute of Social and Economic Research
Center for Behavioral Health Research and Services
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508

October 30, 2018

Acknowledgements

This report was supported by Cooperative Agreement Numbers DD001143 (University of Alaska Anchorage), DD001144 (University of California, San Diego), and DD001035 (University of Pittsburgh, School of Nursing), funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the U.S. Department of Health and Human Services.

The authors would like to express gratitude to:

- Marilyn Pierce-Bulger, CNM, FNP, Owner and Medical Manager, FASDx Services, LLC
- The leadership and staff of the American College of Nurse-Midwives (ACNM)
- All ACNM members who took part in the online survey
- All partners and champions associated with CDC's FASD Practice and Implementation Centers, National Partners, and the Collaborative for Alcohol-Free Pregnancy

BACKGROUND

As part of an ACNM collaboration with the Centers for Disease Control and Prevention (CDC) and its partners and grantees on a project to prevent fetal alcohol spectrum disorders (FASDs), ACNM members were surveyed to assess the practice behaviors of certified nurse-midwives and certified midwives related to the prevention of FASDs. Two surveys were conducted; the first served as a baseline from which to measure change in nurse-midwives' and midwives' practice behaviors over the course of the project. Results from the baseline assessment were also used to inform detailed collaborative activities between ACNM and CDC grantees whose efforts specifically target nurse-midwives (i.e., University of Alaska Anchorage (UAA); University of California, San Diego; University of Pittsburgh). The second survey was conducted 15 months after the baseline as a follow-up and findings were compared to the baseline.

METHOD

Instrument & Procedures

The assessment survey was created for the CDC FASD project. The instrument has four main questions, three of which contain sub-questions or follow-up questions. Items assess practice behaviors, beliefs, and confidence associated with alcohol screening and brief intervention (SBI).

For both baseline and follow-up, ACNM members were invited to participate in a brief online survey. An email invitation signed by a UAA researcher was sent by ACNM; one reminder email was also sent.

The instrument and procedures for this evaluation activity was approved by UAA's Institutional Review Board as well as the federal Office of Management and Budget.

Participants

Survey participation was tracked from the original email through to survey completion. The number of ACNM members at each stage for both baseline and follow-up surveys is detailed in Table 1. Because all individuals who were active members of ACNM at the time of each survey administration were invited to participate and no identifying information was collected from participants, it is not known how many of the participants at baseline and follow-up were the same individuals.

Table 1. SURVEY PARTICIPATION

	Baseline	Follow-Up
Emails delivered	6,747	6,483
Emails opened	2,737	2,384
Began survey	586	426
Didn't answer any questions	39	44
Valid responses	547	382
Response rate	8.1%	5.9%

Participants indicated their professional certification or affiliation with ACNM; most participants identified as certified nurse-midwives.

Table 2. TYPES OF RESPONDENTS

	Baseline	Follow-Up
Certified Nurse-Midwives	448 (81.9%)	328 (85.9%)
Certified Midwives	14 (2.6%)	6 (1.6%)
Students	31 (5.7%)	12 (3.1%)
Other	-	5 (1.3%)
Missing	54 (9.9%)	31 (8.1%)

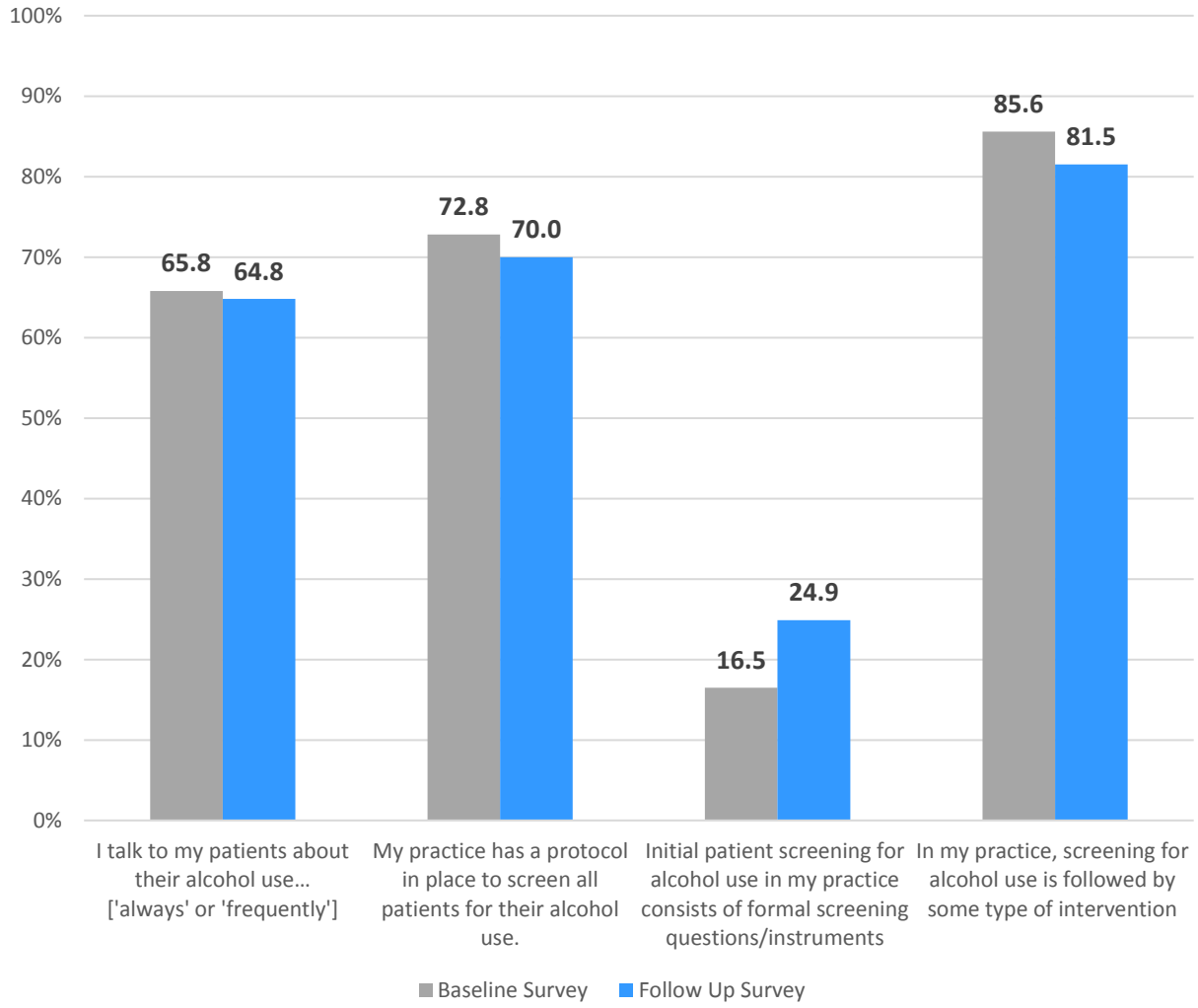
RESULTS

Discussing Alcohol Use with Patients and Screening/Protocol for Alcohol Use

At both baseline and follow-up, the majority of respondents reported that they frequently or always talk with their patients about their alcohol use. At baseline, the majority of respondents (72.8%) indicated that their practice has a protocol in place to screen all patients for alcohol use, but very few (16.5%) used a validated screening tool (e.g., AUDIT, CRAFFT). At follow-up, a similar proportion of participants (70.0%) reported that their practice has a protocol in place. However, significantly more respondents (24.9%) reported using formal screening/instruments than at baseline, X^2 (2, N=633) = 6.78, p = .01. Despite the increase in number of respondents reporting use of formal questions, the majority of respondents (75.1%) still reported using informal questions (e.g., Do you drink? How much?) rather than validated instruments.

At both baseline and follow-up, the majority of respondents reported that screening for alcohol is followed by some type of intervention in their practice. See Figure 1 for comparisons.

FIGURE 1. PRACTICE BEHAVIORS RELATED TO ALCOHOL SCREENING & BRIEF INTERVENTION



Respondents whose practices have an alcohol screening protocol indicated what type of healthcare professional typically conducts the screening and the intervention. At both baseline and follow-up, more than half indicated that the alcohol screen is generally conducted by a nurse, nurse-midwife, or midwife. Nurse, nurse-midwives, and midwives were also the healthcare professional most frequently conducting interventions. See Figures 2 and 3 for comparisons.

FIGURE 2. HEALTHCARE PROFESSIONALS CONDUCTING ALCOHOL SCREENING

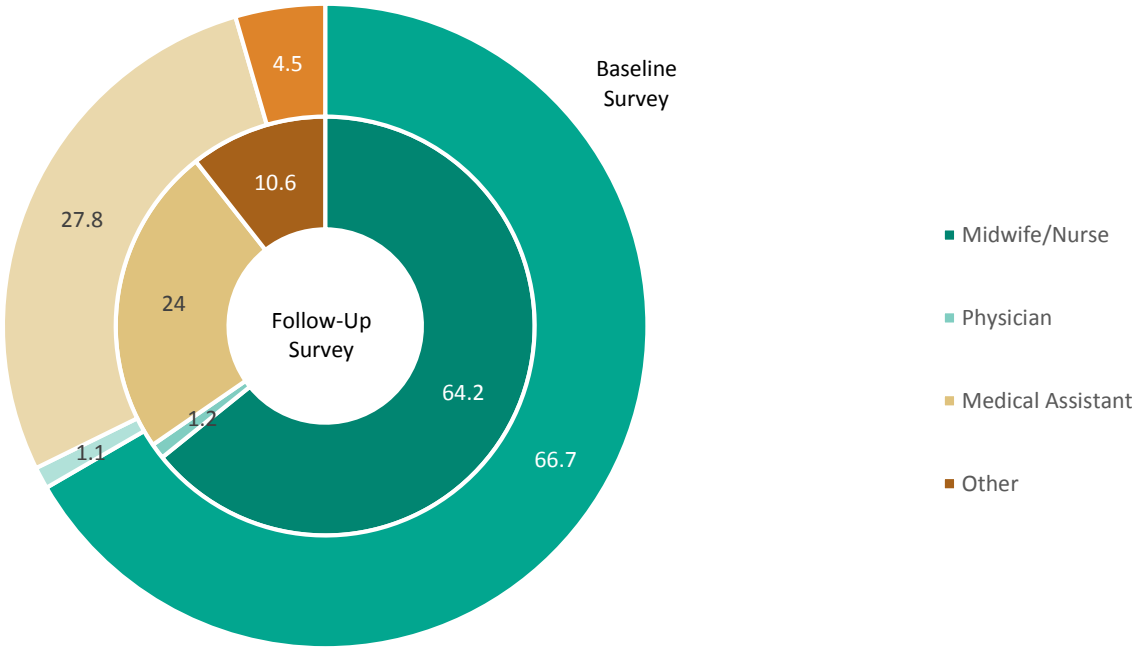
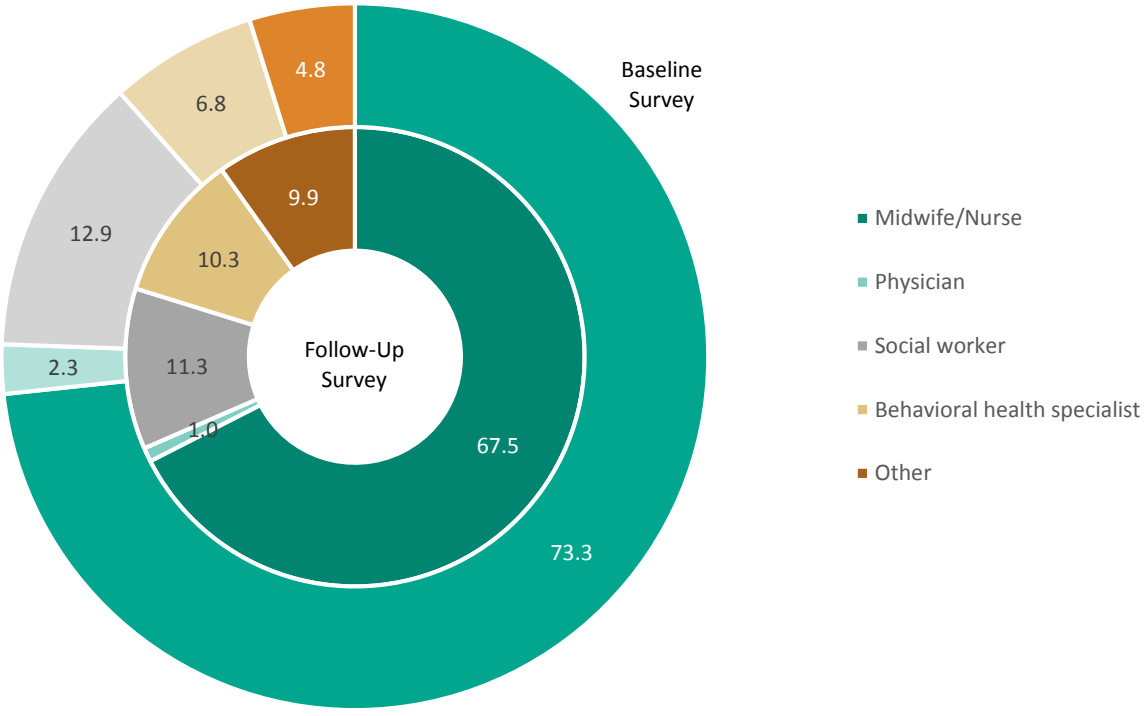


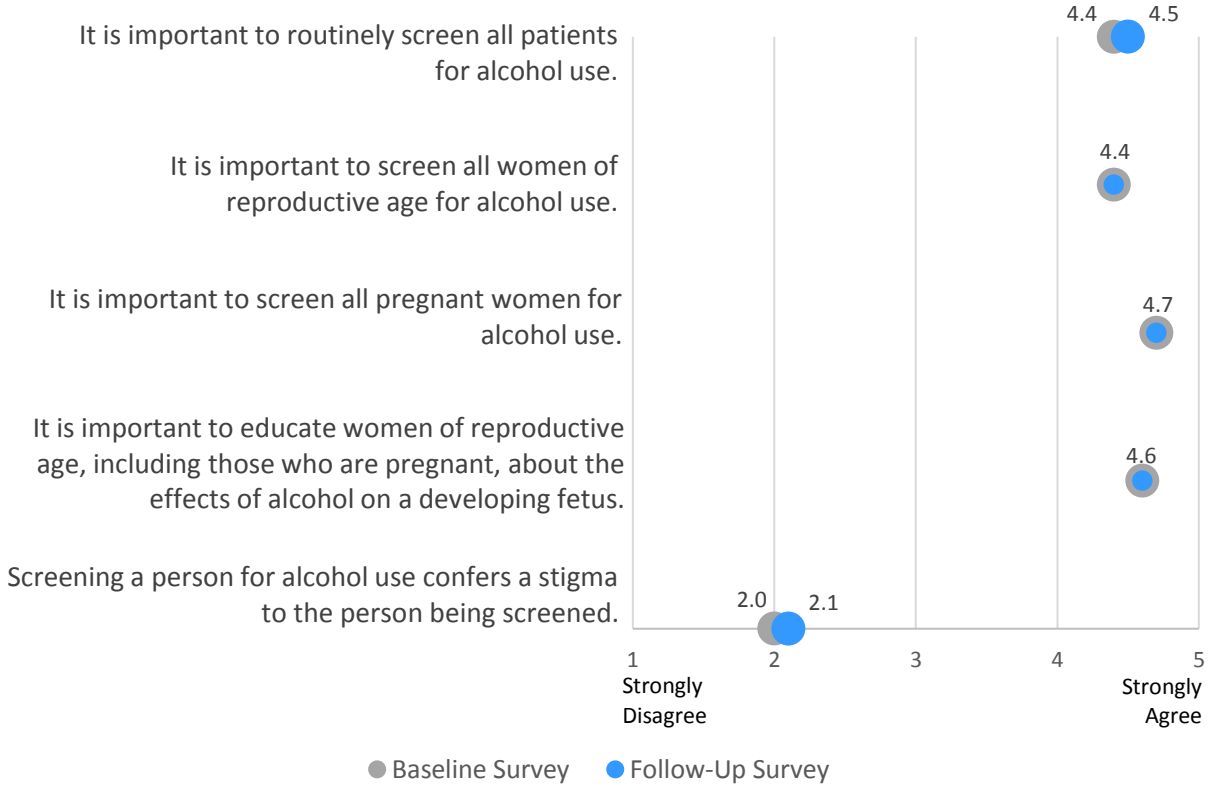
FIGURE 3. HEALTHCARE PROFESSIONALS CONDUCTING ALCOHOL INTERVENTION



Attitudes about Alcohol Screening and Brief Intervention

Respondents indicated the extent to which they disagree or agree with a variety of statements related to alcohol screening and brief intervention. Using a scale from 1 (strongly disagree) to 5 (strongly agree), respondents agreed at both baseline and follow-up that it is important to screen all patients, all women of reproductive age, and all pregnant women for alcohol use, with the highest rates of agreement for pregnant women. Respondents also agreed at both baseline and follow-up that it is important to educate women of reproductive age about the effects of alcohol on a developing fetus, and it is important to inquire about and document potential prenatal exposure for all pediatric patients. Respondents disagreed in both baseline and follow-up surveys that screening a person for alcohol use confers a stigma to the person being screened, but they agreed that a diagnosis of one of the FASDs may confer a stigma to a child and/or his or her family. On all items, respondents reported similar attitudes at follow-up as they did at baseline; no statistically significant effect for time was found. See Figure 4 for comparisons.

FIGURE 4. ATTITUDES ABOUT ALCOHOL SCREENING & BRIEF INTERVENTION



Confidence in Skills

Respondents provided ratings of their confidence in performing a variety of skills or practice behaviors related to FASD prevention using a scale from 1 (not at all confident in my skills) to 5 (totally confident in my skills). Respondents indicated similar levels of confidence at follow-up compared to baseline; no statistically significant difference for time was found. At both time points, respondents indicated the most confidence in asking women, including pregnant women, about their alcohol use. Respondents were also relatively confident in having conversations with their patients who indicate risky alcohol use, educating women about the effects of alcohol on a developing fetus, and inquiring about potential prenatal exposure. Participants reported more confidence in referring individuals who need formal treatment for alcohol abuse than in conducting brief interventions for reducing alcohol use. Respondents were the least confident in managing/coordinating the treatment and care of persons who have an FASD. See Figure 5 for comparisons of all items.

FIGURE 5. CONFIDENCE BY PRACTICE BEHAVIOR/SKILL

DISCUSSION

A number of limitations are important to consider when interpreting the results of this survey effort. First, because participant identifying information was not collected, analyses did not compare specific individuals' cognitions or practice behaviors at baseline to follow-up. Additionally, it is unknown whether any of the survey respondents were exposed to FASD project activities. Therefore, results describe ACNM members in general. Additionally, due to relatively small sample sizes and low response rates, results may not accurately describe all ACNM members.

Overall, the practice behaviors, attitudes, and confidence of ACNM respondents regarding alcohol screening and brief intervention and FASD prevention did not change from baseline to follow-up. Most respondents reported talking to their patients about their alcohol use as well as having a protocol in place at their practice to screen patients for alcohol use both at baseline and at follow-up. The majority of respondents still reported that they do not use formal screening questions or instruments such as the AUDIT or CRAFFT when screening for risk; however, use of these formal screening instruments was reported slightly higher in the follow-up survey than the baseline survey. Nurse-midwives and midwives were most often the healthcare professionals conducting alcohol screening and intervention, indicating their continued important role in FASD prevention.

Findings suggested a sustained positive attitude for alcohol screening and education about consequences of alcohol on a developing fetus. Attitudes in the follow-up survey paralleled attitudes in the baseline survey, indicating that respondents maintained the view of screening as an important clinical practice while disagreeing that screening confers stigma to the person being screened.

Similar to baseline results, respondents indicated low confidence in behaviors such as conducting brief alcohol interventions for indicated patients, diagnosing or identifying FASDs, and referring patients or managing care of patients who have an FASD. Respondents continued to be highly confident in skills such as asking women about their alcohol use, educating women about the consequences of alcohol on a developing fetus, and having conversations with patients who indicate risky use.

Taken together, results demonstrate the opportunity for ACNM to continue promoting members' adoption of evidence-based prevention practices associated with alcohol-exposed pregnancies and FASDs. Specifically, offering continued opportunities for clinician-led training and awareness-raising activities specific to FASD prevention can increase ACNM members' confidence in skills and enhance practice behaviors to effectively address alcohol among women of reproductive age. ACNM can also promote clinical procedures, including the use of a validated alcohol screening instrument designed to detect at-risk alcohol use among patients, to increase potential for FASD prevention in routine care to be realized. Finally, emphasizing the implementation of evidence-based practices at the health systems level, such as alcohol SBI, can promote optimal clinical environments for midwives to routinely address alcohol use with patients.

Future efforts to survey healthcare professionals, including ACNM members, would be bolstered by improving response rates. Survey administration could likely benefit from use of incentives, personalized invitations, and/or mail invitations. Surveys intending to measure changes in members' behaviors or cognitions would also benefit from the use of identifiers to track individual respondents over time. Ultimately, targeted measurement approaches with subsets of members who are targeted with interventions may yield more useful findings.